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AUTHOR Roecks, Alan L.
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ABSTRACT

The major purpose of this study was to explore the differences between a group of 56 undergraduates who occupied single rooms and 57 undergraduates who occupied double rooms in the Gonzaga University Residence Hall System during the 1972-1973 academic year. The differences were evaluated according to one cognitive variable, grade-point average; two demographic variables, age and family size; and 16 non-cognitive variables. The 16 non-cognitive variables were evaluated according to the 15 need scales and counseling readiness scales of Gough's Adjective Checklist. The 15 scales included achievement, dominance, endurance, order, intraception, nurturance, affiliation, heterosexuality, exhibition, autonomy, aggression, change, succorance, abasement, and deference. Significance was found two variables, the demographic variable, age; and the cognitive variable, cumulative grade-point average. Thus, the undergraduate who lived in a private room, in contrast to the undergraduate who lived in a double room, was apparently older and maintained a higher cumulative grade-point average. Results of a question which ascertained undergraduates' preference for either living with or without a roommate indicated 45 of 56 undergraduates who lived in a private room and 28 of 57 undergraduates who lived in a double room would prefer to live without a roommate during the 1973-1974 academic year. (Author)

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A COMPARATIVE STUDY OF THE NON-COGNITIVE, COGNITIVE AND DEMOGRAPHIC CHARACTERISTICS OF UNDERGRADUATES WHO RESIDED IN DOUBLE ROOMS WITH UNDERGRADUATES WHO RESIDED IN SINGLE ROOMS AT GONZAGA UNIVERSITY

A Thesis

Presented to

the Faculty of the School of Education

and to

the Graduate School

Gonzaga University

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

in Education

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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By

Alan L. Roecks

July 1973

CG 010 396

Approved for the

School of Education

and the Graduate School by

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Professor - School of Education

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Dean of the Graduate School

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Significance was found on two variables, the demographic variable, age; and the cognitive variable, cumulative grade-point average. Thus, the undergraduate who lived in a private room, in contrast to the undergraduate who lived in a double room, was apparently older and maintained a higher cumulative grade-point average.

Results of a question which ascertained undergraduates' preference for either living with or without a roommate indicated 45 of 56 undergraduates who lived in a private room and 28 of 57 undergraduates who lived in a double room would prefer to live without a roommate during the 1973-1974 academic year.

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CHAPTER I

NATURE OF THE PROBLEM

Background

Studies by Freedman (23:11-17)[1], and Bushnell (10:489-514) left little doubt that what students learn in college was determined to a large extent by the norms of behavior, attitudes and values that prevail in the peer groups to which students belong. A constant source of peer group interaction existed in university residence hall settings. Thus, residence hall living definitely influenced peer-group interaction among college students.

The amount of social and psychological impact that residence hall living had on a student varied greatly. Siegel and Siegel (49:360-364) suggested that not only do different living conditions have differential psychological and sociological impacts, but also that the same residence unit had different psychological and sociological impacts.

One variable which influenced the students' involvement in the residence hall setting was perhaps the students' personality characteristics. Stern (54:33-58) suggested a rigid, vocationally-oriented living arrangement was best for the authoritarian personality. Stern further pointed out that

[1]The first number (23) refers to the number assigned in the SELECTED REFERENCES and the second number (11-17) cites the exact page or pages to be consulted.

the anti-authoritarian personality preferred a less-structured, more social form of living condition.

Data by Toffler (58:328) suggested there was a trend towards an increasing diversity of life-styles in the United States since 1968. Hampshire College, traditionally an engineering institution, has completely re-evaluated the college's educational goals since 1958. Basic in the "Hampshire approach" was the concept that each student be allowed sufficient lebensraum, or living space, so the student can more fully utilize and interact in the university experience.

Modular housing was constructed at Hampshire College (18:37) in a period of less than three months and has proved to be an effective design for integrating university and student life. Similar modular designs have proven to be effective at Kutztown State College, Pennsylvania (39:26) and Azusa Pacific College, California (40:29).

Rationale

In the description of student life at Vassar College, Bushnell wrote, "in a very real sense, the roommate situation can 'make' or 'break' the Vassar girl with respect to her academic and social life" (10:504). Although such a statement may not be applied with equal force to all colleges and universities, there was no doubt that roommates were an important and influential part of the students' college experience. Yet, there were many interrelated factors that were involved in evaluating the effect of roommate situations.

A majority of studies involving the impact of roommates focused on the cognitive element, or academic achievement. Studies by Dexter, (14:194), and Hall and Willerman (26:311) have found that the academic achievement of roommates is positively correlated.

Studies have clearly shown that various kinds of residential settings differ in family background, stated Feldman and Newcomb (20:197). Although no studies have directly evaluated a "socioeconomic-status" variable which included a dimension for family size. This researcher evaluated the effect of family size on roommate selection.

One of the more exciting factors in roommate selection involved exploration of non-cognitive dimensions in roommate selection. Alsobrook (4:41-52) suggested that the social and personal adjustments of students was affected by the extent to which roommates are "health-engendering." Apart from Alsobrook's work, very little has been done involving non-cognitive dimensions of roommate selection. In light of the fact that very little research has been done in this area, this researcher gave major consideration to the exploration of non-cognitive factors and how they influenced roommate selection.

Available to the Gonzaga University undergraduate students who wanted to live in the Gonzaga Residence Hall System for the 1972-1973 academic year were 13 residence halls, varying in size, and having the capacity to accommodate from 50 to 365 students. The enrollment for the 1972-1973 academic year was about 1800 undergraduate and approximately 800 graduate students. The undergraduate curriculum

was represented by nine academic divisions: the graduate programs included the Schools of Law, Education, Business and Arts and Sciences. The University, built in 1887, is a Catholic institution sponsored by the members of the Society of Jesus and is financially supported through student fees, alumni and private donations.

Gonzaga University, as well as many other private universities, experienced a decrease enrollment in undergraduate students residing on campus in the 1972-1973 academic year. Myles J. Anderson, Vice-President for Student Life at Gonzaga University, stated one possible reason for the 18 percent decrease in resident enrollment experienced at Gonzaga University during the 1972-1973 academic year was the university policy that single undergraduate students, who are under 21 years of age at the beginning of the academic year, must reside in the Gonzaga University residence hall system. Some of these single undergraduate students preferred not to live in the residence halls and thereby chose not to attend Gonzaga. Since it was not financially possible for the university to abandon this living requirement, the university was forced to make resident hall facilities more attractive to the Gonzaga student. Realizing that data from other private universities, including Stanford University (56:12) and Hampshire College (18:37) indicated that students found resident halls more desireable if more private facilities were available, Gonzaga University offered the student additional private rooms for the 1973-1974 academic year.

During the entire 1972-1973 academic year, this researcher was Coordinator of Gonzaga University Student Housing, resided in the university

resident hall system, and worked as a graduate assistant in Student Personnel Services. Thus, this author had considerable accessibility to the Gonzaga students, especially to the Gonzaga undergraduates who lived on campus.

Since such a valuable resource as the Gonzaga undergraduate who resided on campus was readily available and since this researcher, as Coordinator of Student Housing, was aware of increased allocation of private rooms for the 1973-1974 academic year, this researcher chose to explore and to compare certain characteristics of undergraduates who lived in double and single rooms. The data collected from such an exploration and comparison was used in the planning of the 1973-1974 allocation of double and single rooms.

Purpose

The purpose of this study was to evaluate characteristics of undergraduates who lived in double rooms and characteristics of undergraduates who lived in single rooms in the Gonzaga University residence hall system according to 16 non-cognitive variables as measured by Gough's Adjective Checklist (ACL), one cognitive variable - cumulative grade-point average at Gonzaga University (GGPA), and two demographic variables, family size and age.

The following hypothesis was tested and was presented in null form:

Hypothesis: The mean-standard score did not differ significantly at the .01 point between the undergraduates who lived in double rooms and the

undergraduates who lived in single rooms as evaluated by 16 non-cognitive, one cognitive, and two demographic variables.

Definition of Terms

1. A residence hall was any of the 13 living units available to students to live in at Gonzaga University during the 1972-1973 academic year.

2. A single-occupancy student was any undergraduate who lived in a single room of the residence hall during the 1972-1973 academic year.

3. A double-occupancy student was any undergraduate who lived in a double room in the residence hall with the same roommate during the 1972-1973 academic year.

4. The term non-cognitive applied to the personality characteristics of students as described by the students' scores on the 24 scales of Gough's Adjective Checklist (ACL).

5. The term cognitive applied to the intellectual characteristics of undergraduates as described by the undergraduate's cumulative grade-point average at Gonzaga University (GGPA).

6. The term demographic applied to the population characteristics, age and family size.

7. Family size applied to the number of members in a student's family including the student, the student's parent(s), and the student's brother(s) and/or sister(s).

CHAPTER II

REVIEW OF RELATED LITERATURE

In this chapter, consideration has been given to a discussion of literature related to the study. The major divisions of Chapter II are: A Brief Investigation of Personality Theories, Personality Theories Involving the Variables of Psychological Need, Interpersonal Relationships, The Campus Environment, Personality Characteristics of Residence Hall Students, and Student Housing Trends in Higher Education.

A Brief Investigation of Personality Theories

Definition

Webster's New Collegiate Dictionary defined personality as "the totality of an individual's characteristics: an integrated group of emotional trends, behavior devices, etc." (59:741). The term personality was derived from the Latin "persona" meaning mask, or the Latin "per se una", meaning self-containing. Mask was the outward indication of a person's characteristics: self-containing refers to that "innate force which integrates a person's behavior, adjusts him to his environment, or activates his feedback response to the reactions of individuals" (20:ix).

Sanford noted that "personality is a high level construct referring to the unique organization of enduring attributes of the individual" (47:437). Allport offered that "personality was the dynamic organization within the individual of those psychophysical systems that determine his unique adjustments to his environment" (3:48).

Typologies

As early as 400 B.C., Hippocrates wrote about the properties of the body and the effects of these properties on personality. Hippocrates believed that the body was comprised of four basic properties or humors and, in each body, one of these properties was dominant.

Kretchmer (33:28-77) in 1925 developed a typological system based on descriptive factors of body build. Each individual body was typed as either athletic or muscular, asthenic or thin and frail, pyknic or short and rounded, and of differing types, or dysplastic.

Large populations of individuals cannot be categorized into a few all-encompassing typologies, posed Sanford (47:435). Sanford further stated such descriptions are inaccurate because they: (1) ignore the plethora of individual attributes and limit description of the individual to only a few attributes and (2) assume individuals in the same typology are the same, both in respect to the single attribute and, even more disturbing, in respect to all other attributes.

Trait Theories

The whole array of evidence for the existence of general and consistent stylistic traits has been used to argue for the unitary organization of the personality, suggested Allport (2:480). If in a wide variety of adjusting situations, the individual demonstrated similar expressive behaviors, then the existence of large unitary determinants in the structure of personality must be present and these determinants manifested themselves in the

individual behavior in numberous, consistent and congruent ways. These determinants or traits Allport defined as:

> . . . a generalized and focalized neuropsyche system (peculiar to the individual), with the capacity to render many stimuli functionally equivalent, and to initiate and guide consistent (equivalent) forms of adaptive and expressive behavior. (3:295)

Cattell founded a statistical method of prediction from certain traits called factor analysis:

> Factor analysis believes that there are natural, unitary structures in personality and that it is these traits, rather than the endless labels in the dictionary, on which we should concentrate. (11:55)

Eysenk (20:41), in commenting about the reliability of concept at the trait level, pointed out that Cattell and Gruilford have both carried out extensive investigations using their own instruments. Results from the statistical investigations have demonstrated two separate sets of traits which showed little overlap.

Phenomenological Theories

The originator of client-centered therapy, Carl Rogers, described one recurring observation and its theoretical implications:

> It is as changes occur in the perception of self and in the perception of reality, changes occur in behavior. In therapy, these perceptual changes are more often concerned with the self than with the external world. Hence, we find in therapy that as the perception of self alters, behavior alters. (46:206)

Rogers further discussed the process by which an individual alters his behavior:

> We discover the way in which the person sees himself, and the perceptions he dares not take as belonging to himself, seem to have an important relationship to the inner peace which constitutes adjustment. We discover within the person, under certain conditions, a capacity for the restructuring and reorganization of self, and consequently, the reorganization of behavior, which has profound social implications. (46:219)

As Southwell and Merbaum (52:151) pointed out, the psychologist and mathematician Lewin clearly saw the necessity for rapproachment between the clinical and experimental bodies of psychological knowledge. In addition, Lewin has contributed his superb skill for being able to analyze and translate complex clinical concepts into experimentally manageable propositions. In writing about behavior differences, Lewin said:

> On the whole then, we may say that the variety of behavior increases during childhood with normal development. This may be expressed by the formula:
>
> (1) $\underline{var}\ (B^{Ch}) < \underline{var}\ (B^{Ad})$ where var means variety: B^{Ch}, behavior of the child: B^{Ad}, behavior of the adult. To simplify our formistic representation and to indicate that we merely wish to characterize the main trends of development, we will refer in the formulas to two levels only, indicated as Ch and Ad. (35:101)

Several limitations of the phenomenological frame of reference were listed by Smith:

> Phenomenology, as distinct from common sense is descriptive, not explanatory. It is an approach or method ancillary to the formulation of problems and derivation of constructs, and does not give birth to these constructs full blown.
>
> The phenomenological approach provides one method of deriving subjective constructs. But not all subjective constructs need represent phenomenal entities. They may, thus, denote functional entities that are either absent from the phenomenal field or inaccurately presented in it. (51:238)

Cognitive Theories

Kelly (32:1-62) designed a whole and comprehensive theory of personality in which cognitive processes were at the very heart of the theory. The fundamental postulate of Kelly's theory was that "A person's processes are psychologically channelized by the ways in which he anticipates events" (32:46). From this postulate eleven corollaries were deduced covering the areas of construction, individuality, organization, dichotomy, choice, range, experience, modulation, fragmentation, commonality, and sociality.

Bruner and Rogers (9:373-75) suggested that Kelly's corollaries, especially his choice corollary, were conceptually unfounded. Rogers' major criticism of Kelly's therapy was it was seen as almost entirely an intellectual function and there seemed to be no time or opportunity for entering into an emotional relationship with the client.

Festinger stated his basic hypothesis of cognitive dissonance as follows:

> 1. The existence of dissonance, being psychologically uncomfortable, will motivate the person to try to reduce the dissonance and achieve consonance.
> 2. When dissonance is present, in addition to trying to reduce it, the person will actively avoid situations and information which would likely increase the dissonance. (22:2)

Natalia P. Chapanis and Alphonse Chapanis (13:22) argues that Festinger's interpretation of dissonance theory worked for only two discrepant statements and that it was impossible to reduce the essentials of a complex situation to just two phrases. Condensing most complex

social situations into two simple dissonant statements represented too great a level of reality and the model no longer bore any reasonable resemblance to reality.

Psychoanalytic Theory

Strupp (55:21) has said one of Freud's greatest achievements was to discern continuity and orderly development in each individual's emotional maturation. Emotional disturbances in adult life were no longer seen as quirks or disease entities for which no rational explanation could be found; rather Freud demonstrated they could be understood as logical outcomes of a disturbed childhood. Thus adult neurosis could not occur without an infantile neurosis. The three stages of personality development in early childhood as distinguished by Freud were: oral, anal, and phallic.

Criticism of the psychoanalytic theory have been given by Sanford (47:448) and included: 1) Freud's theory was created on the basis of emotional disturbances among middle-class people in Vienna a half-century ago and 2) the theory overemphasizes the unconscious process in behavior.

Learning Theories

Dollard and Miller (16:25) contended that human behavior was learned and that behavior which was widely felt to characterize man as a rational being was learned rather than innate. The field of human learning covers a wide range of phenomena and throughout the whole range the same fundamental factors seem always to have been present. These factors are: drive, response, cue and reinforcement.

Geiwitz (24:67) noted the social learning approach used by Bandura and Walters focused on human social behavior and the mechanism by which this behavior was established and regulated. The social learning approach distinguished three distinct classes of mechanisms: external stimulus control, feedback or outcome information, and central mediational processes which refer to self-generated stimulation that was relatively independent of environmental events.

Rappaport (44:143) questioned the learning theorists' assumption that all behavior could be understood in terms of certain temporal mechanisms and further pointed out that certain learning situations could be better understood by using other learning theories.

Personality Theories Involving the Variables of Psychological Need

Human motives can be arranged in a hierarchy from stronger and lower at one end to higher and weaker at the other end. This hierarchy as originally described by Maslow (38:1-96) was as follows:

1. The physiological needs, hunger, thirst, air, etc.
2. The safety needs, the needs for freedom from threat or danger or the need to ally oneself with the familiar and the secure.
3. The belongingness and love needs, the need for affiliation, for belongingness, for acceptance.
4. The esteem needs, the needs for achievement, for strength, for competence, for reputation, for status or prestige.
5. The need for self-actualization, the need for self-fulfillment, to realize potentialities, to become what one is capable of becoming.
6. Cognitive needs, the need to know and understand, curiosity, the need to understand the mysteries, the need to tackle the unknown.
7. Aesthetic needs, the need for symmetry, order, system, and structure.

Murray, in attempting to find interrelated behavior, compiled

the following list of needs:

Dominance--desire to control sentiments and behavior of others.
Autonomy--need to go one's own way, uninfluenced and uncoerced.
Aggression--need to attack with anger in face of opposition or annoyance or insult.
Abasement--need to submit, to accept and enjoy pain or blame or criticism, to surrender, to resign oneself to fate.
Achievement--need to accomplish something difficult, to master or manipulate physical objects; to overcome obstacles.
Sentience--need to seek and enjoy sensuous impressions.
Exhibition--need to make an impression, to be seen and heard, to excite, amaze, entertain or shock people.
Play--the need to do things for fun without further purpose.
Affiliation--the need to cooperate, to please people, to associate with people.
Rejection--need to be separated from undesirable people, the need to snub or exclude or ignore or jilt.
Succorance--need to be helped, the need to be given aid or love or protection.
Nurturance--to help, love or protect the helpless, the weak, to give sympathy.
Inavoidance--to avoid humiliation, embarrassment or belittlement.
Defendance--to defend against attack, to avoid criticism or blam, to vindicate oneself.
Counteraction--to make up for failure by trying harder, to overcome humiliation by renewed effort, to overcome weaknesses.
Harmavoidance--to avoid pain, illness, injury, or death, to be cautious.
Order--to put things in order, to keep things clean, orderly, organized, tidy, and precise.
Understanding--need to understand relationships, to understand for the sake of understanding.
Sex--erotic attitude. (41:144)

Atkinson and Feather (5:367-70) in exploring the achievement need variable have projected failure-threatened and achievement-oriented personalities for individuals. Characteristics of the failure-threatened personality included a strong fear of failure, considerable dependence on other individuals, pessimistic, defensive, very little self-confidence, low level of endurance, and erratic changes in levels of aspirations.

The achievement-oriented personality was generally self-confident, optimistic, realistic, persevering, displayed pride in work, and was attracted to activities which require the successful exercise of skill.

Interpersonal Relationships

Sanford (47:464) presented six qualities of the adequately functioning individual:

1. Realistic and accepting attitudes toward oneself.
2. Continued growth, development, and self-actualization.
3. Integration and balance.
4. Individual autonomy.
5. Clear perception of reality.
6. Mastery of the environment

Friendliness and respect for self and others, discerned Levine (34:430), were necessary for effective social behavior and in the interpersonal relationship. The individual whose interpersonal development was of a high order perceived others as people, not as objects to be manipulated or used for his own selfish advantage. This individual had the ability to be by himself and could function effectively, depending on others while pursuing his own objectives in a self-reliant manner.

Pressey and Kuhler (43:516) offered a study of behavior traits of frequently, average, and seldom-chosen delinquent adolescent girls: some characteristics of the low acceptability group were quarrelsome, hagging, aggressive, dominant, attention-demanding and praise-seeking: characteristics of the high acceptability group included cooperative, even disposition, well-organized, willingness to accept minor or background roles, friendly and independent.

Horrocks (31:304) propounded that adolescents, when listing the people they would most like as friends, tended to select those most likely to staisfy their psychological and social needs, as well as those who have interests and attitudes similar to their own. Appreciation of others' rights and ability to participate successfully in activities popular with adolescents were particularly important in formation of friendships.

In studying roommate compatibility, Pace (42:146) found that highly dissatisfied roommate pairs had significantly lower academic achievement than the roommate pairs characterized by little roommate dissatisfaction.

The Campus Environment

A Period of Change

Higher education in the 1950's tended to produce "a generation of gamesmen," noted Riesman (45:20), "bright but unconvinced men, who are erudite but poor specimens of mankind." Axelrod (6:52) propounded that higher education's achievement in standardizing the students of the 1950's has been commemorated in a folksong that became a hit in 1964. The song begins with a description of the houses that made of "ticky-tacky" resemble a series of boxes. The second stanza runs:

> All the people in the houses
> All go to the university
> And they all get put in little boxes, little boxes all the same--
> And there's doctors and there's lawyers and business executives
> And they're made out of ticky-tacky
> And they all look just the same. (7:52)

But when the song reached its greatest popularity in 1964, the words were less true than when they were first sung. A turning point in the American system of higher education had been passed. By 1966 students, advancing in a new direction, had become more destandardized, added Axelrod (6:52), and the adminstration of higher education were more open to student views. But in what way and according to what dimensions have the students and institutions of higher learning changed, and in what direction are they heading?

Description and Measurement of Environment

Harold Hodgkinson (30:xiv), sponsored by the Carnegie Commission on Higher Education, investigated changes in higher education and found that the amount of diversity in American higher education is decreasing. Size, an important factor in describing an institution, played a prominent role in determining a more diverse student body which had less institutional loyalty and a tendency towards more student activism.

What are the basic taxonomic classifications of American colleges suggested by need press analysis? The vast majority of institutions using the College Characteristics Index examined by Stern (53:726) were characterized by environments that emphasized some degree of conformity and restraint. However, small but elite private liberal arts colleges, which appeared to be distinguished by their high level and breadth of the intellectual press and emphasis on personal freedom and informality, exert considerable influence over their students in the long run and were exceptions to the institutional pattern of short-term constraint. Sanford

(48:830) propounded that students differed according to the institution's public image.

Toffler offered this view of college students:

> Each spring an immense lemming-like migration begins over the Eastern United States ... some 15,000 American college students toss aside their texts and follow a highly accurate homing instinct that leads them to the sun-bleached shoreline of Fort Lauderdale, Florida ... at the end of this period the bikini-clad girls and their bronzed admirers pack their kits and join in a mass exodus ...
>
> What attracts young people is more than an irrepressible passion for sunshine. Nor is it mere sex, a commodity available in other places as well. Rather it is a sense of freedom without responsibility. (58:95)

Campus Design

In 1972, the following design of an ecosystem of the campus environment was proposed by the Western Interstate Commission for Higher Education:

1. Designers, in conjunction with community members, select educational values.
2. Values are then translated into specific goals.
3. Environments are designed which contain mechanisms to reach the stated goals.
4. Environments are fitted to students.
5. Student perceptions of the environments are measured.
6. Student behavior resulting from environmental perception is mentioned.
7. Data on the environmental design successes and failures, so indicated by student perception and behavior, is fed back to the designers in order that they may continue to learn about student environment fit and design better environments. (19:7)

Personality Characteristics of Residence-Hall Students

Marshall and Rickey (37:438) discovered that persons choosing to attend college as compared with those not choosing to attend had higher

achievement, succorance and dominance needs and lower abasement and endurance needs.

Freedman (23:31) examined personality changes during the college years and found that changes occur primarily during the first year. Seniors were usually more dominant, confident, assertive, and independent and often more ready to express their impulses than were freshmen, expressed Feldman and Newcomb (21:36).

Alfert (1:92) stated that students who scored high on personality indices of independence, dominance and introspection and who were interested in excitement and change preferred to live in apartments and boarding houses instead of living at home, in a fraternity, sorority, residence hall, or cooperative. Single male freshmen who live in residence halls showed a higher need for recognition than single male freshmen who lived off-campus and a higher need for independence than either fraternity or off-campus men, propounded Dollar (15:147).

In a study conducted at the University of California at Berkeley (12:84) senior men who chose to live in the dormitories viewed the world in a non-impulsive, deliberative, nonaggressive, and conforming manner, as measured by the Omnibus Personality Inventory. Senior women who chose to live in the dormitory were often extroverted, scholarly, and esthetic.

Student Housing Trends in Higher Education

In a housing survey at the University of Virginia, Titus (57:209) stated that students believed good housing should provide a variety of

housing choices, quietness and privacy. Characteristics of housing preferenced most by women were private baths and private rooms. Sinnett, Sachson and Eddy (50:209) investigated the influence of living units on the behavior of college students and found that students felt living units should be smaller and that the "ideal living unit would also allow privacy when desired and designed so that there are no more than two people per room." Educational Facilities Laboratory, Inc. (17:21) purported that old dormitories are being recycled into dormitories that meet the important demands of the college student: namely, increased privacy and an opportunity for coeducational living.

Several new trends in housing were noted by the Educational Facilities Laboratory (17:29). Living-learning centers were becoming increasingly more popular; apartments represented the preferred housing of college students in 1972; industrialized residence halls have been constructed very economically and several universities have increased utilization of factory-built residences; design-construct contracts, where the owner does not hire an architect to design the building have resulted in more economical student housing; and debt service grants and direct loans allowed the universities additional funding for expanding to meet the projected increase of students in the mid 1970's.

CHAPTER III

DESIGN OF THE STUDY

Introduction and Hypothesis

In this chapter, this researcher has provided a discussion of the following: statement of hypothesis, population, procedures, instrumentation, and analysis of data.

The following hypothesis was tested and presented in null form:

Hypothesis: The mean-standard score did not differ significantly at the .01 point between the undergraduates who lived in double rooms and the undergraduates who lived in single rooms as evaluated by 16 non-cognitive, one cognitive, and two demographic variables.

Population and Sample

Population

The single-occupancy population consisted of 26 women undergraduates and 42 men undergraduates. All of the undergraduates lived in single rooms during the 1972-1973 academic year in the Gonzaga University residence hall system.

The double-occupancy population consisted of 382 undergraduate men and 322 undergraduate women, or 196 pairs of undergraduate men roommates and 161 pairs of undergraduate women roommates. Each pair of roommates had lived together in the 1972-1973 academic year in the Gonzaga University residence hall system.

Sample

The sample consisted of a random representation of 31 men undergraduates who occupied single rooms, 26 women undergraduates who occupied single rooms, 31 men undergraduates who occupied double rooms, and 31 women undergraduates who occupied double rooms in the Gonzaga University residence hall system during the 1972-1973 academic year.

Participating in the experiment were 30 of 31, or 96.7 percent, of single-occupancy men: 26 of 31, or 83.9 percent of double-occupancy men: and 31 of 31, or 100 percent of the double-occupancy women. The entire population of single-occupancy women, 26 in number, also participated in the experiment.

Procedures

On April 15, 1973, all 113 members of the sample population were sent a letter from this researcher (See Appendix I, page 47) asking for the student's assistance in the research project. The letters were sent by mail and were placed in each student's campus mailbox.

In the period from April 26 to May 3, the 113 students were administered Gough's Adjective Checklist (ACL). In order th obtain data regarding family size and room preference, each student was given the following instructions before completing the ACL:

> "Would you please write in the upper-right hand corner of your Adjective Checklist form the number of members there are in your family, including yourself and your parents. Directly below the number, would you please write your age. Now would

you please indicate if you would prefer to live by yourself, without a roommate, or if you would prefer to live with a roommate. Assume you were to live in the Gonzaga University residence hall system during the 1973-1974 academic year. Please put either 'with' or 'without' according to your preference."

An average of 15 minutes was taken to complete the ACL. The ACL was administered in one of the following settings: an adjoining room to the Spokane Room at pre-registration for Fall 1973 residence hall housing or the student's residence hall.

Since housing registration was rescheduled, each student who wished to live in Gonzaga University's residence halls for the Fall semester of 1973 pre-registered in the Spokane Room of Gonzaga's Student Union Building between 7:00 and 10:00 P.M. on May 3. Following pre-registration, the randomly selected students who had pre-registered were individually administered the ACL in an adjoining room to the Spokane Room. For those randomly selected students who wished not to pre-register, but attended pre-registration, the ACL was also individually administered in an adjoining room to the Spokane Room.

Those students who were selected to participate in the study and did not attend pre-registration were contacted by this researcher and administered the ACL in the student's residence hall.

Instrumentation

In 1949, Gough and Heilbrun (25:3) began to assemble a list of descriptive adjectives of individual behavior based on a list of trait words compiled by Cattell in 1946.

A list of the 300 adjectives considered to be essential in describing human behavior was completed in 1952 and was the forerunner of the ACL used in this study. The first eight scales on the ACL were designated as descriptive indices and the last fifteen as need indices.

Descriptive indices, which were not utilized in this particular study are total checked, defensiveness, favorable, unfavorable, confidence, self-control, lability and personal adjustment. The 15 need indices that were used as measurements of individual behavior in this study include achievement, dominance, endurance, order, intraception, nurturance, affiliation, heterosexuality, exhibition, autonomy, aggression, change, succorance, abasement, and deference. The last, or 24th scale, counseling readiness, was also used as a descriptive index for this study. Thus, in this particular study, the 15 need scales and the counseling readiness scale were used to evaluate the individual behavior of Gonzaga undergraduates. A complete discussion and description analysis of the 24 scales can be found in the ACL Manual (25:1-33).

The rank order correlation between the need scales of the ACL and the related need scales of the Edwards Personal Preference Schedule was found by Heilbrun (27:283-87) to be .60, significant at the .05 point. In an earlier study, Heilbrun (29:347-51) demonstrated that the achievement, nurturance, affiliation, exhibition, and abasement scales were shown to be significantly related to non-test criteria of the same dimension. In the early 1960's, Heilbrun (28:58-63) studies characteristics of freshmen

women dropouts using six need scales of the ACL and found dropouts, in comparison with other freshmen women, scored consistently higher on the heterosexuality and change indices and lower on the achievement, order, and endurance indices.

The ACL Manual (25:1-33) declared the test-retest reliability coefficients over a six-month period for 100 men varied from a low of .01 to a high of .86, with a mean coefficient of .54 and a standard deviation of .19.

Analysis of Data

The first step in the analysis of data was the electronic scoring of completed ACL by National Computer Systems of Minneapolis, Minnesota (See Appendix I, page 46). Analysis of variance was performed on the IBM 360-30 System at Gonzaga University. Since the computer memory size limited the analysis of variance, only 16 of the 24 variables were evaluated in the study. The 16 variables evaluated were the 15 need indices and the counseling readiness scale on the ACL.

Analysis of variance as proposed by Brownlee (8:462-82) was used to determine differences between and within scores of the two groups on the 16 standardized scales of the ACL (See Appendix II, pages 49-54). Where a significant F ratio was found, Tukey's method for multiple comparisons (8:317) was used to ascertain which combination or combinations of the means were responsible for the contrasts between and within groups beyond chance. When the calculated Tukey value was larger than the

studentized table value (8:567), comparisons were assumed to be significant at the .01 point and responsible for part of the variance between group means.

Differences between the mean scores of the two groups on GGPA, age and family size scores was investigated by using the Student t-test. When the computed t-value was greater than the Table t-value (36:508) for .01 point of significance, the comparisons were assumed to be significant and responsible for part of the variability between group means.

CHAPTER IV

PRESENTATION AND DISCUSSION OF RESULTS

Introduction

The primary objective of this study was to explore differences and similarities between single-occupancy undergraduates and double-occupancy undergraduates at Gonzaga University on 16 non-cognitive, one cognitive, and two demographic variables. A secondary objective was to explore the preferences of the single-occupancy undergraduate and the double-occupancy undergraduate by analyzing their given response to the question of whether they would prefer to live with or without a roommate.

The next section of this chapter was devoted to the presentation of the hypothesis followed by a discussion of the findings. The third division of the chapter discussed the presentation and analysis of student responses to the question which asked if the students would prefer to live with or without a roommate during the 1973-1974 academic year. Contained in the final section was a brief summary of the findings of the study.

Presentation and Discussion of Hypothesis

Included in this section was a treatment of data using Tukey's method for multiple comparisons which evaluated the differences between

and within the group means on the 16 non-cognitive scales of Gough's Adjective Checklist (ACL) (See Appendix III, pages 56-57). Difference between the mean scores of the two groups on the cognitive variable, cumulative grade-point average at Gonzaga University (GGPA) and two demographic variables, family size and age, was investigated by implementing the Student t-test (See Appendix III, page 58).

Hypothesis

The mean standard score did not differ significantly at the .01 point between the undergraduates who lived in double rooms and the undergraduates who lived in single rooms as evaluated by 16 non-cognitive, one cognitive, and two demographic variables. A summary of the significant differences between undergraduates who lived in single rooms, or single-occupancy students, and undergraduates who lived in double rooms, or double-occupancy students, is presented in Table 1, page 29, Table 2, page 30, and Table 3, page 31.

From the results of Tukey's method for multiple comparisons, the single-occupancy group and double-occupancy group did not differ dignificantly at the .01 point on all 16 non-cognitive variables as evaluated by the ACL.

Table 1

Significant Differences Between Single-Occupancy Students And Double-Occupancy Students According To the Student T-Test

	Student t-test Results				
	Single-Occupancy		Double-Occupancy		t
	Mean	n_1	Mean	n_2	
Age	20.500	56	19.932	57	7.5597*
GGPA	2.796	56	2.712	57	3.8132*

*significant at the .01 point
$df = n_1 - 1 + n_2 - 1$

As evaluated by the Student t-test, the single-occupancy and double-occupancy students differed significantly on the cognitive variable, GGPA, and one demographic variable, age. The single-occupancy students tended to be more successful academically, as measured by the student's cumulative grade-point average at Gonzaga University (GGPA), and tended to be older than the double-occupancy students.

In summary, these findings indicated that significant differences between single-occupancy students and double-occupancy students were found on one cognitive variable, cumulative grade-point average at Gonzaga University (GGPA), and one demographic variable, age. Thus, the hypothesis was rejected.

Discussion of Findings

Table 2

Variability of Non-Cognitive Variables of the Single-Occupancy Student Group and of the Double-Occupancy Student Group

	Variability of Group		
	n	Variance	Standard Deviation
Single-Occupancy	56	61.34755	7.8324
Double-Occupancy	57	92.70581	9.6284

As seen from the results presented in Table 2, the single-occupancy students, as a group, had considerably less variability in their responses to the 16 non-cognitive variables of the ACL than the double-occupancy students, as a group. This finding would imply the single-occupancy students were a more homogenous group in their responses to the 16 non-cognitive variables. Thus, the single-occupancy group's non-cognitive characteristics as evaluated in the study would be more easily identifiable and more predictable than the non-cognitive characteristics of the double-occupancy group.

Presentation and Discussion of Question Responses

The question, which was asked to all students in the study before they completed the ACL and to which all students responded was:

"Now would you please indicate if you would prefer to live by yourself, without a roommate, or if you would prefer to live with a roommate. Please assume you were to live in the Gonzaga University residence hall system during the 1973-1974 academic year. Please put either 'with' or 'without' according to your preference."

Table 3

Single-Occupancy and Double-Occupancy Students' Responses In Answer to the Question Whether the Students Would Prefer to Live With or Without a Roommate

	Student Responses	
	With	Without
Single-occupancy	11	45
Double-occupancy	29	28
TOTAL	40	73

The findings, summarized in Table 3, indicated 11 of 56, or 19.6 percent of the single-occupancy students and 29 of 57, or 50.9 percent of the double-occupancy students preferred to live with a roommate; 45 of 56, or 80.4 percent of the single-occupancy students and 28 of 57, or 49.1 percent of the double-occupancy students preferred to live alone or without a roommate. All student preferences were made for the upcoming, 1973-1974 academic year.

These results apparently described the single-occupancy student as a student who definitely wanted a private room, although nearly one out of five students who had a private room responded they would prefer to live with a roommate.

The double-occupancy students seemed to be divided about equally between students who wanted a roommate and double-occupancy students who preferred to live alone. Hence, nearly half the double-occupancy students would have liked to have had a private room but were unable to obtain a private room.

Summary

Significant differences between single-occupancy and double-occupancy students were found for one cognitive variable, cumulative grade-point average at Gonzaga University (GGPA), and one demographic variable, age. The findings presented in this chapter indicated the hypothesis was to be rejected.

The results of this study suggested the single-occupancy student was older and a higher achiever than the double-occupancy student. An evaluation of responses to a question indicated most single-occupancy students and nearly half of the double-occupancy students preferred to live alone during the 1973-1974 academic year.

CHAPTER V

SUMMARY, LIMITATIONS AND CONCLUSIONS

Summary

The primary purpose of this study was to evaluate the characteristics of two groups of Gonzaga University undergraduates--students who lived in private rooms, or single-occupancy students, and students who lived in double rooms, or double-occupancy students, according to non-cognitive, cognitive, and demographic variables. A secondary objective was to obtain student responses in answer to the question whether the student would prefer to live with or without a roommate in the Gonzaga University residence hall system during the 1973-1974 academic year. The double-occupancy group consisted of 57 undergraduates who had lived in double rooms with the same roommate; the single-occupancy group was composed of 56 undergraduates who had lived in single rooms. Both groups had lived in the Gonzaga University residence hall system during the 1972-1973 academic year.

An analysis of variance technique was used to determine differences between and within two groups--single-occupancy students and double-occupancy students according to 16 non-cognitive variables which were the 15 need indices and counseling readiness scale of Gough's Adjective Checklist (ACL). Tukey's method for multiple comparisons was used to determine which group combination or combinations were responsible

for the variance between and within the groups at the .01 point of significance.

Differences between the single-occupancy students and double-occupancy students mean scores was found by using the Student t-test. Mean scores were evaluated according to one cognitive variable, cumulative grade-point average at Gonzaga University (GGPA), and two demographic variables, age and family size. Family size was defined as the number of people in the student's family including the student, his parent(s), brother(s) and sister(s).

The single-occupancy students and the double-occupancy students differed significantly on the cognitive variable, GGPA, and on one of the demographic variables, age. The single-occupancy students registered significantly higher scores than the double-occupancy group on the cognitive variable, GGPA, and the demographic variable, age.

Responses to the question which attempted to determine if the undergraduates participating in the study would prefer to live with a roommate or live without a roommate indicated 45 of 56 single-occupancy students and 28 of 57 double-occupancy students would prefer to live without a roommate.

An interesting finding was that 11 of 56 single-occupancy students would prefer to live with a roommate for the 1973-1974 academic year, even though they had lived without a roommate during the previous, 1972-1973 academic year.

In summary, the results of this study seemed to suggest that the single-occupancy student, in contrast to the double-occupancy student, was older and more accustomed to receiving better grades. The single-occupancy students, as a group, generally gave more consistent responses to the 16 non-cognitive variables as evaluated by the ACL behavioral indices than did the double-occupancy students, as a group.

Limitations

1. The measurement of the non-cognitive variables was limited to the use of only one instrument, the ACL.

2. This study was limited to a group of students who occupied single rooms and lived alone and to a group of students who occupied double rooms and lived with a roommate in the Gonzaga University residence hall system during the 1972-1973 academic year.

3. The study was limited to small samples: however, the maximum number of possible participants in each group was nearly realized.

4. The limited storage capacity of the computer at Gonzaga University confined the evaluation of non-cognitive variables to 16 instead of 24 available non-cognitive variables.

Conclusions, Discussion and Implications

Conclusions

The following conclusions were made concerning the data analyzed and presented in Chapter IV:

1. The single-occupancy student was generally older and received a higher grade-point average than the double-occupancy student.

2. The single-occupancy students, as a group, were more consistent and predictable than double-occupancy students, as a group.

3. About four out of five single-occupancy students preferred to live alone during the 1973-1974 academic year: approximately one out of five single-occupancy students preferred to live with a roommate during the 1973-1974 academic year.

4. Nearly one out of two double-occupancy students would prefer to live alone during the 1973-1974 academic year.

5. None of the 16 non-cognitive scales of the ACL as evaluated by Tukey test were found to be significant.

Discussion

During the 1972-1973 academic year only a limited number of private rooms were available to students. Many students requested private rooms during the 1972-1973 academic year: only a few were able to obtain private rooms. About two-thirds of the private rooms were allocated according to a "priority list" established a year before in the 1971-1972 academic year. In allocating private rooms, older students were often given priority over younger students. Thus, the result that students in single rooms were significantly older than students who lived in double rooms was not unexpected.

An important point which should be mentioned was that the remaining one-third of the private rooms were not allocated according to a "priority list". A majority of these private rooms were given to students

who were judged by the Student Life Administrators and Residence Hall Staff as having had considerable difficulty adjusting to a roommate situation. Since the study only indirectly was concerned with the student's personal and social adjustment, an evaluation of the effect on the findings of the study of single-occupancy students who were described as having difficulty adjusting to a roommate situation could not be ascertained.

Data from the study indicated the single-occupancy students were a more homogeneous and predictable group than the double-occupancy students; hence, the composition of single-occupancy students was assumed to be more uniform than the composition of double-occupancy students. Since the ACL did not appear to be sensitive enough to determine differences between groups, use of a more refined instrument might be considered. Utilization of the eight scales of the ACL which were not used in the study--particularly the social adjustment scales--might also assist in more completely appraising the characteristics of the single-occupancy student.

Implications

1. A replication of the study should be considered using a very reliable and sensitive instrument such as the Edwards Personal Preference Schedule to evaluate non-cognitive variables.

2. The study might be replicated in the 1973-1974 academic year to ascertain a more complete profile for the single-occupancy student since a larger number of single rooms will be available.

3. Since a need for more private rooms was established, a more extensive study might be undertaken for determining a profile of the student who prefers a single room. The results of this study might influence and assist in allocation of private rooms during the 1973-1974 academic year.

4. Consideration might be given to a similar study which would evaluate non-cognitive variables related to social adjustment.

5. In designing residence hall living units, the fact that differences between students who prefer single rooms and students who prefer double rooms should be considered.

6. A similar study involving differences according to sex might be considered. The results of such a study could be integrated into the planning of coeducational facilities.

7. Replication of the study might be considered using a representative sample of the increasing number of law and graduate students. Results of this study could assist in establishing better law and graduate facilities.

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APPENDIX I

GOUGH'S ADJECTIVE CHECKLIST

LETTER TO PARTICIPANTS IN STUDY

Due to copyright, Guogh's Adjective Checklist has been removed from this document.

Gonzaga University / SPOKANE, WASHINGTON 99202 (509) FA 8-4220

April 16, 1973
Gonzaga University

Dear Terry,

In the last few years, there has been an increasing demand by Gonzaga students for more private rooms. Presently, I am doing a research project comparing undergraduates who live in double rooms with undergraduates who live in private rooms. You have been randomly selected to be a part of a special group of undergraduates who I believe can be of assistance for this research.

I would greatly appreciate it if you would be kind enough to complete a short inventory at the time you pre-register for housing on April 26 in the Spokane Room of the C.O.G. It is expected that no more than 15 minutes of your valuable time will be needed. The information you give on the instrument will be held in the strictest of confidence.

If you do not plan to pre-register for housing, I will contact you in your residence hall shortly after April 26.

I would be most grateful for your time and participation.

Sincerely yours,

Alan L. Roecks

Mr. Alan Roecks
Graduate Assistant
Student Life
Gonzaga University

APPENDIX II

ANALYSIS OF VARIANCE

Table 4

Two-Way Analysis of Variance of Comparing Men and Women Students and ACL Scores

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Squares	F-Ratio Model I	F-Ratio Model II
ACL Scores	8329.453	15	555.297	7.068*	12.495*
Men and Women	0.929	1	0.929	0.012	0.021
Interaction	666.618	15	44.441	0.566	0.566
Within Cells	140785.000	1792	78.563		
TOTAL	149776.800	1823			

*significant at the .01 point

Table 5

One-Way Analysis of Variance Comparing Single-Occupancy Students and ACL Scores

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Squares	F-Ratio
Between Groups	8138.84	15	542.59	8.845*
Within Groups	53985.85	880	61.35	
TOTAL	62124.60	895		

*significant at the .01 point

Table 6

One-Way Analysis of Variance Comparing Double-Occupancy Students and ACL Scores

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Squares	F-Ratio
Between Groups	3976.11	15	265.07	2.859*
Within Groups	83063.75	896	92.71	
TOTAL	87039.06			

*significant at the .01 point

Table 7

Two-Way Analysis of Variance Comparing Single-Occupancy and Double-Occupancy Students and ACL Scores

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Squares	F-Ratio Model I	F-Ratio Model II
Single-Occupancy and Double-Occupancy Students	8362.984	15	557.532	7.291*	2.146
ACL Scores	557.167	1	557.167	7.286*	2.144
Interaction	3897.292	15	259.819	3.398	3.398
Within Cells	137027.000	1792	76.466		
TOTAL	149843.100	1823			

*significant at the .01 point

Table 8

One-Way Analysis of Variance Comparing Men Students and ACL Scores

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Squares	F-Ratio
Between Groups	4460.31	15	310.69	4.083*
Within Groups	66956.63	880	76.09	
TOTAL	71614.56	895		

*significant at the .01 point

Table 9

One-Way Analysis of Variance Comparing Women Students and ACL Scores

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Squares	F-Ratio
Between Groups	4252.54	15	283.50	3.440*
Within Groups	73850.88	896	82.42	
TOTAL	78100.06	911		

*significant at the .01 point

APPENDIX III

TUKEY AND STUDENT T-TESTS FOR SIGNIFICANCE

Table 10

Calculated Tukey/Values for Differences Between Groups of Single-Occupancy Students and Double-Occupancy Students on Sixteen Scales of the ACL

	Single-Occupancy		Double-Occupancy		
ACL Scale	Mean	Standard Deviation	Mean	Standard Deviation	q
Achievement	52.411	6.2806	47.351	8.9851	4.369
Dominance	53.929	6.8353	48.474	9.9249	4.710
Endurance	53.107	7.7569	47.333	10.6310	4.985
Order	50.768	8.9888	48.298	9.5655	3.333
Intraception	52.411	9.4730	51.211	9.3000	1.036
Nurturance	52.571	7.5121	48.667	9.2357	3.371
Affiliation	50.982	7.5714	48.719	9.0509	1.954
Heterosexuality	54.268	9.7262	53.632	10.8540	0.549
Exhibition	52.322	7.1987	49.439	9.1535	2.488
Autonomy	52.321	7.4908	51.772	9.8507	0.474
Aggression	49.429	7.1652	50.333	8.5947	0.780
Change	52.339	8.8877	53.895	8.2347	1.343
Succorance	44.321	6.5868	47.158	9.7299	2.449
Abasement	44.911	7.1205	48.404	9.8522	3.016
Deference	46.321	7.7767	47.807	10.0260	1.284
Counseling Readiness	48.696	7.9702	50.930	10.648	1.929

df = 32,1792

Table 11

Calculated Tukey/Value for Differences Between Groups of Men and Women on Sixteen Scales of the ACL

	Men		Women		
ACL Scale	Mean	Standard Deviation	Mean	Standard Deviation	q
Achievement	49.786	8.0605	49.930	8.2805	0.021
Dominance	50.750	8.8304	51.596	9.1062	0.721
Endurance	49.196	9.7017	51.175	9.7213	1.686
Order	48.571	8.5575	50.456	10.0110	1.606
Intraception	52.339	9.0358	51.281	9.7261	0.901
Nurturance	50.161	8.5976	51.035	8.6849	0.744
Affiliation	49.875	8.3341	49.807	8.5198	0.058
Heterosexuality	53.768	8.7531	54.123	11.6450	0.302
Exhibition	50.393	8.3941	51.333	8.3202	0.801
Autonomy	52.232	8.5642	51.860	8.9551	0.317
Aggression	50.071	7.4562	49.702	8.3687	0.314
Change	53.875	9.0776	52.386	8.0351	1.268
Succorance	45.768	8.6634	45.737	8.2235	0.027
Abasement	46.500	9.1572	46.842	9.4024	0.017
Deference	47.143	8.4217	47.000	9.5581	0.122
Counseling Readiness	51.393	9.7116	48.281	8.9876	2.651

df = 32,1792

Table 12

Calculated T-Values for Single-Occupancy and Double-Occupancy Students According to Family Size, Age and GGPA

	Single-Occupancy			Double-Occupancy			
	n_1	Mean	Standard Deviation	n_2	Mean	Standard Deviation	Calc. t
Family Size	56	7.14	1.9643	57	7.02	1.8526	0.3309
Age	56	20.50	0.3950	57	19.93	0.4060	7.5597*
GGPA	56	2.80	0.1568	57	2.71	0.1424	3.8130

$df = n_1 - 1 + n_2 - 1$
*significant at the .01 point

Table 13

Means and Standard Deviations for Single-Occupancy Men and Women And Double-Occupancy Men and Women According to Family Size, Age, and GGPA

	Family Size			Age		GGPA	
	n	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Single-Occupancy Men	30	6.83	2.52	20.97	1.67	2.74	0.538
Single-Occupancy Women	26	2.50	2.50	19.96	1.22	2.86	0.604
Double-Occupancy Men	26	6.50	1.88	19.86	1.62	2.50	0.584
Double-Occupancy Women	31	7.23	2.50	20.00	1.34	2.89	0.449